



30.00 - 102 - 3/8  
1980.00 - 103 - 4/2/8  
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mailed September 28, 1984  
PATENT

Atty's. Docket No. 2083.2A

655897

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of  
David F. Mark et al.

Before the Examiner

SERIAL NO.:

B. Hazel

FILED :

Group Art Unit: 127

TITLE : CYSTEINE-DEPLETED MUTEINS OF  
BIOLOGICALLY ACTIVE PROTEINS

PRELIMINARY AMENDMENT

Honorable Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Sir:

Upon the assignment of the serial number and filing date,  
please amend the above-identified patent application as follows:

IN THE SPECIFICATION

On page 1, line 4, after "application" insert, -- is a  
division of U.S. Serial No. 564,224, filed December 20, 1983, which in  
turn --; on page 1, line 5, after "1983" insert --now abandoned, --.

IN THE CLAIMS

Cancel claims 1 to 42, inclusive and add the following  
claims in lieu thereof.

43. A synthetic mutein of a biologically active IFN- $\beta$   
protein wherein the cysteine residue at position 17 of human IFN- $\beta$  is  
deleted or replaced by another amino acid.

24. The synthetic mutein of claim 43 wherein said cysteine  
residue is replaced by an amino acid selected from the group  
consisting of serine, threonine, glycine, alanine, valine, leucine,  
isoleucine, histidine, tyrosine, phenylalanine, tryptophan or  
methionine.

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3 102 30.00 CK  
3 103 190.00 CK  
3 104 100.00 CK ✓

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